



Summary of main conclusions:

Prevalence study of gambling and gambling problems in Denmark 2021

Please notice that the present text is an unofficial translation of the original Danish "Sammendrag af prævalensundersøgelse af pengespil og pengespilsproblemer i Danmark 2021".

Introduction



In November 2017, a political agreement on strengthening the combat on compulsive gambling in Denmark was agreed on. Based on the agreement, Rambøll Management Consulting has conducted a study of the **prevalence of gambling problems in Denmark** to monitor the development in the gambling area. The study is conducted on behalf of the Danish Gambling Authority in the period 2021-2022.

This summary presents the **main conclusions** of the study, and its purpose is to provide an overview of the prevalence study. The main report including a section on the effect of advertising on players is available on the Danish Gambling Authority's website [Spillemyndigheden.dk](https://spillemyndigheden.dk).

The study identifies the prevalence of gambling problems among adults as well as children and young people. In addition, the study identifies the connection between video gaming and gambling.

The summary includes four main sections:

1. The methodology of the study
2. The prevalence of gambling problems in Denmark
3. Who have problems with gambling?
4. Video gaming and gambling

The methodology of the study

National survey

The purpose of the national survey was to uncover the prevalence of gambling problems in Denmark.

The study is made for adults (18-79 years old) and children and young people (12-17 years old). The survey was sent to **10,000** randomly selected adults and **5,000** randomly selected children and young people.

The total response rate for the entire study was about **38 percent**. (37.6 percent) – 38.6 percent among the adults and 35.7 percent among the children.

The PGSI screening tool was used to measure the prevalence of gambling problems. The tool consists of nine questions with four response option and scores. Based on the total score, the respondents are categorised in four categories:

1. Non-problem gambler (score of 0)
2. Low risk gambler (score of 1-2)
3. Moderate-risk gambler (score of 3-7)
4. Problem gambler (score of 8+)

Qualitative interviews

The purpose of the qualitative interviews is to nuance the results of the national survey. 20 adults and 10 children and young people were recruited for interviews based on their responses in the survey or via Center for Ludomani (treatment centre for compulsive gambling).

The focus during the recruitment was to get in contact with persons with moderate or severe gambling problems and persons who video game.

The prevalence of gambling problems

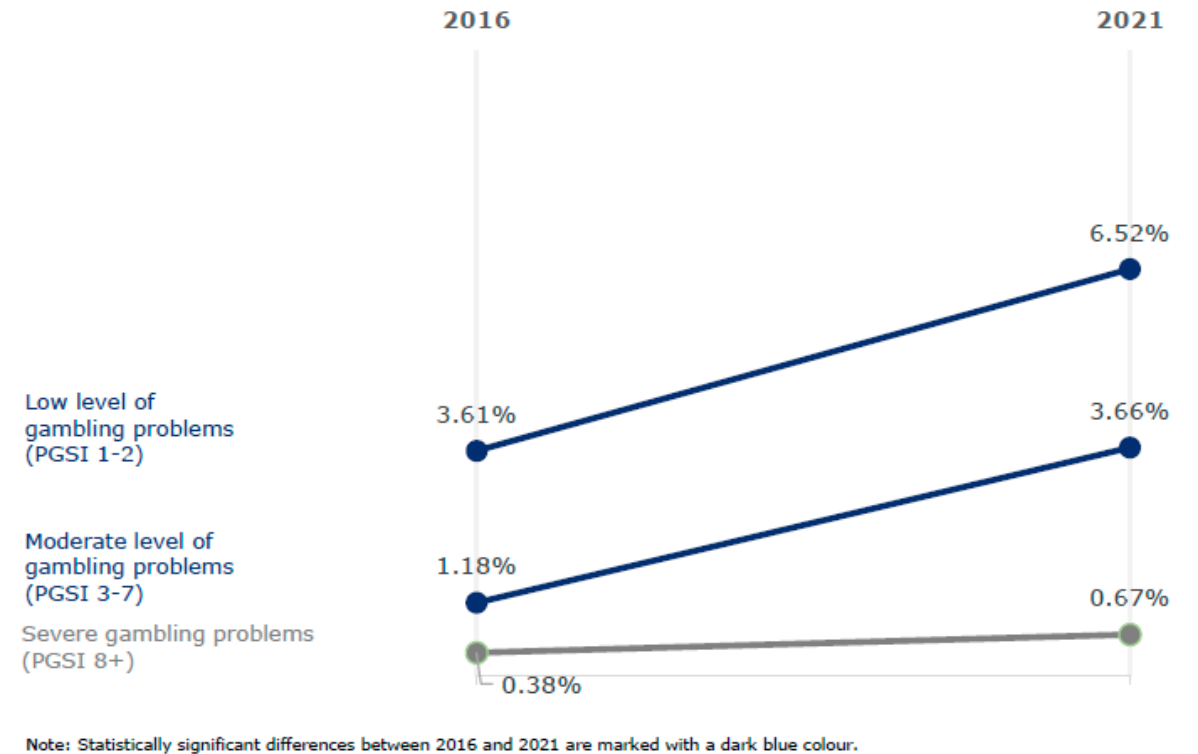
In 2016, **5.2 percent** of adult Danes (corresponding to approx. 212,000 persons) at least a low level of gambling problems. In 2021, the share had increased to **10.9 percent** (corresponding to approx. 478,000 persons). The increase is statistically significant.

In 2021, approx. **29,500 adult Danes** has severe gambling problems (equivalent to 0.67 percent). In 2016, the share of persons with severe gambling problems was 0.38 percent (corresponding to approx. 16,000 persons). **The development is not statistically significant.** Thereby, the study cannot conclude that the share of problem gamblers has increased from 2016 to 2021.

In **Denmark**, 10.9 percent of the adults had at least a low level of gambling problems, while in **Sweden** it is 4.3 percent and in **Norway** 13.8 percent*.

Among children and young people between 12-17 years old, **6 percent** have a low level of gambling problems (corresponding to approx. 24,500 children and young people) even though it is not legal for this age group to use most types of gambling products. Approx. **2,600 children and young people** have severe gambling problems (corresponding to 0.6 percent).

Figure 1: Prevalence of gambling problems among adult Danes (18-79 years old) in 2016 and 2021



Who have problems with gambling?

Several demographic and socio-economic characteristics are often related. For example, young people often have low incomes and high alcohol consumption. The connection between alcohol consumption and gambling problems can therefore potentially be that more young people both drink a lot of alcohol and have gambling problems.

This is why a **statistical model** (regression model) is used to estimate the significance of the individual characteristics for the probability of having gambling problems.

Adults with gambling problems

The regression analysis shows that the probability of having gambling problems is higher for:



Men



Younger people



Persons with a job



Persons who experience having a poor physical health



Persons with a higher alcohol consumption

Note: The regression analysis is controlled for sex, age, education, attachment to the labour market, income, physical health, mental health, alcohol consumption, drug use, and crime.

Children and young people with gambling problems

The regression analysis shows that the probability of having gambling problems is higher for boys. None of the additional factors have an independent effect on the probability for having gambling problems in the regression analysis.

Note: The regression analysis is controlled for sex, age, who the young person lives with, the young person's parents' attachment to the labour market, the young person's job, whether the young person has a part-time job, whether the young person receives pocket money, physical health, mental health, whether the young person has consumed alcohol, drug use, and crime.

First gambling activity and gambling behaviour

First gambling activity – adults

Common for both adults with and without gambling problems is that the majority started gambling when they were between 18 and 24 years old.

For adults with gambling problems, the first gambling activity is often physical and online betting while for adults without gambling problems, it is often lotteries/scratch cards purchased from a non-remote retailer.

Adults with gambling problems are typically introduced to gambling by a friend and to a greater extent they have acquaintances who gamble.

Gambling behaviour – adults

95 percent of the adults with gambling problems and 41 percent without gambling problems have gambled within the last year.

The preferred types of gambling for adults with gambling problems are online betting and online casino.

Compared to adults without gambling problems, adults with gambling problems spend more time and money on gambling.

Both adults with and without gambling problems typically gamble alone.

First gambling activity – children and young people

Common for both children and young people with and without gambling problems is that the majority started gambling when they were between 9 and 14 years old.

For children and young people with gambling problems, the first gambling activity is often online betting while for children and young people without gambling problems, it is often lotteries/scratch cards purchased from a non-remote retailer.

Children and young people with gambling problems are typically introduced to gambling by a friend and to a greater extent they have acquaintances who gamble.

Gambling behavior - children and young people

84 percent of children and young people with gambling problems and 14 percent of children and young people without gambling problems have gambled within the last year.

The preferred types of gambling for children and young people with gambling problems are online betting and online casino.

Compared to children and young people without gambling problems, children and young people with gambling problems spend more time and money on gambling.

Children and young people with gambling problems more often gamble at pubs/restaurants compared to children and young people without gambling problems.

Which mechanisms lead to a problematic gambling behaviour?

Which mechanisms lead to a problematic gambling behaviour?

Even though the line between the “normal” and the problematic gambling phase is often fluent, the interviewees state three incentives that can pin down the causes of gambling becoming an addiction.

1. Self-understanding as an expert

The interviewees indicate that they over time come to believe that they can control the outcome of the game as a result of their knowledge and/or experience. The rationale thereby is that they win because of their knowledge and skills rather than because of luck. The self-understanding as an expert leads the interviewees to gamble more frequently and with higher stakes because the game is experienced as less risky.

2. Difficult conditions in everyday life

To more interviewees, gambling becomes problematic as they experience more difficult conditions and negative feelings in their everyday life (for example, loneliness, stress at work, or conflicts in their partnership). To elaborate, the interviewees explain that they turn to gambling when they need a refuge or to forget difficult feelings. To the interviewees, gambling becomes a kind of strategy to cope with problems in life.

3. Change in rationale

As the interviewees experience winning, their motivation to gamble changes. The game is not just considered a fun and entertaining activity, but a direct shortcut to a happy and financially independent life. To the interviewees, the game thus becomes synonymous with “the good life” – a life which they cannot achieve in any other way. The dreams that the interviewees associate gambling with thereby support the urge to gamble and causes them to continue gambling.

Quotations from the interviewees

“After I got to know the machine, I truly believed that I could figure out when it would pay out winnings. That is when I should put more money in the machine. And this meant that I started spending a lot more money.”

Man, 39 years old

“When I am lonely, mentally unwell or stressed, gambling is a good way of escaping reality. Then you forget the 300 unread emails in your inbox. Gambling becomes my refuge and a way in which I can feel positive feelings.”

Man, 58 years old

“I really felt that I had to gamble. Imagine if I won. Then everything would change. I would be able to get through the month and maybe even salvage my financial situation.”

Man, 39 years old

Video gaming and gambling

Who and how many play video games?

67 percent of children and young people between 12- and 17-years old play video games. Video gaming is more prevalent among **boys**. 91 percent the boys play video games, while 41 percent of the girls play video games.

The boys spend more **time** on video games than girls, and more boys also feel that they spend too much time playing.

The connection between video gaming and gambling

Video gaming and gambling typically constitute two different types of games, of which the one is gambling for money and the other is an overall term for different video and console games (video gaming).

Many of the video games played today includes option of buying virtual elements connected to gambling. The gambling element are primarily related to **loot boxes** and **skins**.

Skins

53 percent of the boys who play video games have purchased and/or sold skins, while the same only applies to 19 percent of the girls who play video games.

10 percent of the boys who have used skins, have used them in connection with gambling, while it only applies to **1 percent** of the girls who have used skins.

Loot boxes

33 percent of children and young people who play video games have purchased loot boxes. For the boys, it is **43 percent**, while for girls it is 10 percent.

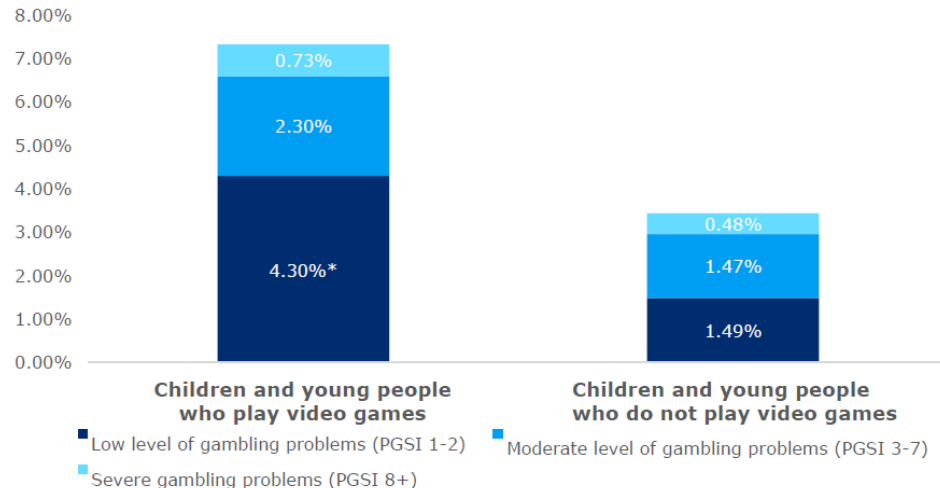
72 percent of children and young people who have purchased loot boxes, have spent less than DKK 50 on loot boxes the last month.

Video gaming and gambling

Connection between PGSI score and video gaming

For children and young people who play video games, 7.3 percent have at least a low level of gambling problems, while for children and young people who do not play video games, 3.4 percent have at least a low level of gambling problems. The difference is statistically significant.

Figure 2: PGSI categories categorised by children and young people who do and do not play video games, respectively.



Statistically significant differences are marked with an asterisk *

The connection between PGSI score and purchase of skins and loot boxes

Among children and young people who have used skins, 11.5 percent have at least a low level of gambling problems, while it is 4.2 percent for children who play video games but have not used skins. The difference is statistically significant.

Among children and young people who have purchased loot boxes, 12.7 percent have at least a low level of gambling problems, while it is 4.7 percent for children who play video games but have not purchased loot boxes. The difference is statistically significant.

Figure 3: PGSI categories categorised by children and young people who have purchased loot boxes, and children and young people who have not purchased loot boxes. The same for young people who have switched, purchased, sold or paid with skins and young people who have not used skins

